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# THE SCHOOL REVIEW

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## REPORT OF THE NEW ENGLAND ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS

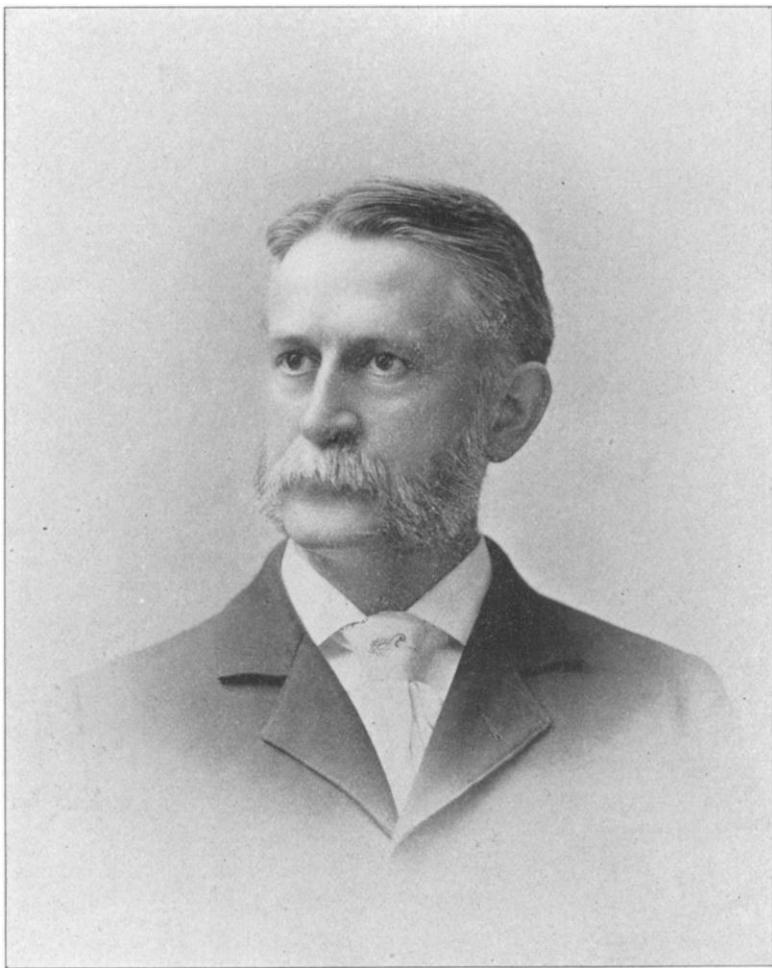
THE twelfth annual meeting of the New England Association of Colleges and Preparatory Schools was held in Isaac Rich Hall, of the Boston University School of Law, Ashburton Place, Boston, on Friday and Saturday, October 8 and 9, 1897. The attendance was large, except during the earlier portion of the business meeting on the second day, and the heartiest interest was manifested.

### FRIDAY AFTERNOON

The association was called to order at 2:45 by the president, Dr. Cecil F. P. Bancroft, Principal of the Phillips Academy, Andover, who occupied the chair throughout the meetings. The secretary was Ray Greene Huling, Head Master of the Cambridge English High School.

On motion the president was authorized to appoint a committee on nominations, to present a list of officers for the ensuing year. Dr. Robert P. Keep, Professor Charles E. Fay, and Mr. D. W. Hoyt were thus appointed.

The association at once proceeded to the consideration of the subjects announced for the afternoon. The first address was given by Dr. Fred W. Atkinson, Principal of the Springfield High School, on



RAY GREENE HULING.

## THE CAPACITIES OF SECONDARY SCHOOL STUDENTS

In one of the initial numbers of the *SCHOOL REVIEW*—that magazine which the secondary-school teacher owes to himself to read—the editor expressed himself as follows: “In determining the ideal curriculum for the secondary schools we must have our eye, not upon the conventional college entrance requirement, but, on the one hand, upon the entire circle of modern culture, and, on the other hand, upon the capacities and the needs of pupils under eighteen years of age.” True to its name and character, however, this association, during the twelve years of its existence, has concentrated its attention mainly upon the “conventional college entrance requirement.” As one result the gap between the preparatory school and the higher institution has been lessened. Harmony of feeling among teachers in school and teachers in college has been brought about. But, as shown by a study of the proceedings of this body, there still seems to be no general unanimity of opinion as to principle of choice in the selection of studies which shall serve as a measure to determine fitness for admission to college. I venture to assert that the vital questions of secondary instruction today are not, for example, how much algebra shall be exacted of the college preparatory pupil, or how many pages of this or that Latin author translated, or how many English books *read*, and how many *studied*, but, do college requirements tend to impoverish secondary education and are they based on a proper knowledge of the limitations and capacities of secondary pupils; are the present demands of the secondary schools too great for the physical and mental forces of any considerable number of pupils, and, is secondary instruction adapted to the needs and interests of the individual? As some one has said, “College requirements are too well planned, that is, planned by specialists. Every specialist has brought his stone to the edifice and in admiring the fine structure we have forgotten the condition of those who are to live in it.” I plead this afternoon for a deliberate change in the point of view—from that of the specialist to that of the student as an individual. I consented to present this paper, in spite of the

fact that I knew so little of the capacities of those young persons with whom I am brought in contact daily, and rather because I had a faint hope that I might succeed in focusing attention for a moment upon the physical and mental well being of the high school and academy pupil quite regardless of his destination.

The period of school life from the twelfth to the eighteenth year is in many respects an extremely critical one. The rapid physical growth, the quick changing and yet steadily developing form of mind, the intensity of the emotions, and, not to name other peculiarities, the sensitiveness to sympathy—all these conditions physical and mental make the period of adolescence singularly liable to disorders of a functional or even of an organic kind. Physiologists and psychologists, both, tell us that over-development of a physical or a mental capacity and the arrested development of another or others may happen very easily at this time unless care be taken to preserve a correct balance. Therefore the teacher needs to know, particularly, the physiology and psychology of adolescence, in order that he may not suffer the healthy and natural development of the physical and psychical natures of his pupils to be impaired.

It would be a palpable truism to state that pupils differ very much as to physical capacity, and hence in their ability to stand up under the tasks which the school imposes upon them, were it not that no practical distinction was made between one learner and another in this respect. It is one of the faults of some of our public high schools, that the *minimum* amount of prepared recitation work required of pupils of entirely different physical power is as high as eighteen and twenty hours a week, exclusive of drawing, music, and other unprepared work. The rule of the Newton school board which requires every pupil to have at least twelve prepared exercises a week—and which allows, of course, the gifted to take as many electives as they please—would appear to be manifestly fairer. Springfield's minimum requirement is fifteen exercises weekly, and, I may say in passing, the average number of recitations per pupil is between eighteen and nineteen. In the opinion of many principals, only the healthier

half of a school can carry twenty hours of prepared recitations a week, exclusive of the two or three hours of "extras," and make it possible for health and education to progress side by side, and to develop lustily together.

The greatest dangers to health, in the public mind, at least, are over-exertion and over-anxiety. It is not uncommon to hear the following and similar expressions : "I should think the high-school teachers were trying to kill my boy," "If I wanted to ruin my daughter's health, I would send her to the high school." "My daughter was graduated from the high school with honors, but I had to have her rest a year before allowing her to go to college." Sometimes the stimulus of competition is too great, and there is apt to be more or less worry about examinations. Solely in the behalf of good school hygiene, I wish in marking pupils that the custom of using "passed" and "not passed" might be adopted by every high school. The question whether there is overpressure is a hard one to answer. Each school with its special local conditions, needs to study the problem systematically and at frequent intervals. Nor can any definite answer be reached without including in the investigation an intimate knowledge of the outside interests of the pupil. Who knows, without such a comprehensive research, in just what proportion the home and the school are responsible for ill-health? If it were only in this matter of health alone, it would be of the highest importance that the parents and the teachers worked together. As a prominent thinker says, "A ton of knowledge at the cost of an ounce of health, which is the most ancient and precious form of wealth and worth, costs more than its value." That a pupil does not break down proves nothing. It should be the teacher's business as far as it is within his power, to see, not that the school in nowise injures a pupil's health, but that it leaves him in better health with a stronger constitution. There are special individuals who need constant watching. To name only one, there is the sensitively conscientious girl.

The whole subject of headaches in schools has been more or less investigated in England. About 10 per cent., to state it

roughly, are prone to headaches. Pupils of a nervous temperament are especially subject to them. Sir Richard Owen is quoted as saying, "Children have no business with headaches at all, and if you find that these occur frequently in any school, you may depend on it there is something wrong there."

A headache is very often a sign of fatigue. The subject of fatigue has already received considerable attention. The time will come when each pupil's fatigue curve along with his reaction-time and other similar data will be recorded. The signs and effects of incipient fatigue are easily recognized, and the tests are fairly simple and accurate. In the near future, there should be undertaken something of a general investigation of this field from the point of view of the secondary teacher in search of a rational basis for arranging the studies of the daily programme, the time and length of intermissions, and vacations, the length of recitation periods, and for determining the amount of work which each individual may safely carry.

Ocular fatigue owing to defective eyesight, is, if we are to believe the oculists, more common than we teachers are aware of. The form of headache which accompanies it, is easily remedied by fitting the pupil to proper glasses. The tests for eyesight, if made in time may prevent serious evil. Injustice, unconsciously, is often done to pupils whose sight is defective. The same is particularly true in case of defective hearing.

The whole subject of the hearing of school boys and school girls requires a paper by itself by a specialist of extended practice. There is, as nearly every aurist will tell you, much defective hearing among boys and girls, which might be greatly aided and could be prevented if simple tests were made in the school. In schools both here and abroad, pupils have been examined, and 20 to 25 per cent. have been found to have defective hearing. Defective hearing and frontal headaches, indicating a catarrhal condition often go together.

The more one looks into this question of individual differences in natural physical powers, the larger does it become. And if along with it the attention is turned toward all the artifi-

cial conditions of school life, the problem becomes a very complex one. Take, for instance, the subject of food, which deserves a chapter by itself. As we all know, boys and girls are apt to neglect their morning meal. They tend to eat too rapidly at all times, and do not masticate their food thoroughly—do not, as Gladstone is said to do, chew each mouthful thirty-nine times. The period of growth requires, dietests inform us, a great abundance of plain and simple food ; for growth must be conceived of as *labor*. The luncheon counter, provided its bill of fare is in accordance with hygienic principles, should be a feature of every high school, as it is now of the best schools.

Then there is sleep which also should receive attention. In respect to this, and to other points regarding health, the academies have a great advantage over the high schools. Yet what inquiries are we high-school teachers making of the parents concerning duration and soundness of sleep ? In relation to all the physical changes now taking place, what measurements are being made, what records kept? How many of us here, I wonder, are watching over the physical development of a single one of our pupils, ready to give timely warning if it does not proceed normally. If the pupil sleeps eight hours, which at the very least he should, and limits himself to eight hours of school and home study, there remain eight hours for recreation and exercise, yet, if I may be permitted to ask, how many of us know how a single pupil spends this time?

Liability to disease is closely related to a weakened or to an accelerated growth. The whole subject of school-bred diseases is too much neglected by teachers, being considered by them entirely out of their province. It is a hopeful sign that at the next meeting of the Massachusetts Teachers' Association this is to be one of the subjects on the programme. Personally, I wish that we might have, as well, a general discussion, based on a series of investigations, of that broader subject,—school-life in relation to growth and health. Everything has been done on the basis of supposed physical possibilities of an average student. In the future, it may not be impossible to base educa-

tional procedure more on the known physical capacities of the individual student.

Also, as to the intellectual well-being of the pupil, is it not true, that, if the pupil has been considered, at all, as of primary importance, the dominating principle in determining, not only the methods but the very choice of subject matter itself, has been the supposed mental capacity of the *average* student? Differentiation among pupils is readily enough granted, but do we not fail to allow for differences in the capability of learners? Are not the same books used, the same requirements exacted, the same interests and aptitudes presumed, and the same standards of judgment applied? One is reminded of what Pater said when certain reformers in England were endeavoring to bring about in Oxford and Cambridge a greater degree of uniformity in the courses pursued. "I do not know," he said, "what your object is. At present the undergraduate is a child of nature; he grows up like a wild rose in a country lane; you want to turn him into a turnip, rob him of all grace, and plant him out in rows." Against similar treatment which diverse pupils get at school all true educators have struggled, but there has been a vagueness as to what were the mental variations shown by different pupils. When these are known, there can be a more definite idea of what variations of treatment are called for.

It is very difficult to determine mental capacity; great skill and care are required to detect the peculiar powers and faculties of the individual pupil. Granted that it is the duty of the teacher to undertake this momentous task, education becomes complicated and difficult. Would there not be, however, for the teacher, in this larger view of education an inspiration? If the inner life of some of our pupils could be known, and their physical and mental development observed and recorded, how many so-called dull pupils would become interesting, and the teaching of them, inspiring. Often the consciousness of talents and abilities for some form of intellectual activity seems to have been concealed from their possessor until some teacher wiser than the rest has brought help to their development. In

many instances, the intellectual birth of a boy or girl may be traceable to the consciousness of the power to do one thing well. There is joy in teaching when one's teaching strikes home—meets with a spontaneous response in the mind of the pupil. Froebel, Pestalozzi, Arnold and the other great teachers of the world have been successful in that they have come close to the hearts and the minds of their pupils. If we ever become a profession it will be by the development of a psychological intelligence ; in other words, by the evolution of an intuitive power which will lay bare the mind of the pupil. Then the success of a teacher will be judged by his ability to diagnose individual mental conditions and prescribe intelligently and sympathetically variations of treatment. When this good time comes, and it is surely coming, although not in a day, we will not have so many mental abortions—minds failing to attain to maturity because unduly pressed and rubbed out, or flattened down. I venture to say that never will secondary-school teaching take on to itself its true dignity until it recognizes the fact that the prescription of the same mental food for each and every pupil may bring about not alone uniformity but deformity. In the high schools, a decrease in the number of prescribed studies with a corresponding increase of alternatives and electives, and on the part of the colleges and technical schools, the adoption of a more liberal policy whereby there may be many roads to the higher educational institutions, will give greater opportunity of adapting the means of instruction to the needs and interests of the individual. Moreover, change in this direction will assure to the secondary teacher his own individuality.

"Child study" needs to be extended to the high school. Boyhood and girlhood has its divinity just the same as childhood, and should be treated just as reverently. A study of the physical facts of adolescence, somewhat as hinted at earlier, should throw light also on the difficult problem of acquiring direct insight into mental conditions. In support of this view, we have but to remember, every psychic process has its correlative in a physiological process. Another, and a more direct

way, to get at difference of intellectual capacity and turn of mind in different learners, is by giving attention to the three aspects of feeling,—temperament, motive and interest.

Mental processes and physical activity are affected, as we all know, by temperament. There will be found in every school types of markedly different temperaments. Individual temperament during this period is liable to rapid changes—sometimes for the better, sometimes for the worse. It is a fair question to ask of the psychologist, how much should our treatment of pupils be modified on account of temperament? To the psychologist we must look for guidance and counsel in any attempt to arrange a plan of pupil study or in any application of the results obtained after the plan has been put into practice.

If through various sources we obtain answers to such questions as, why does this pupil attend school, why does he neglect this or that lesson or why does he study them all carefully, and why does he take mechanical drawing, etc., we shall have herein revealed something of the pupil's purpose of mind. In a similar way, the subject of interests should be approached. It is only as we have a full and an accurate knowledge of a pupil's motives and interests that we can mold and direct them towards worthy objects. I have not the time to outline fully what lines of psychological investigation may be undertaken, nor is it necessary. The paper which follows will, I know, be rich in suggestions. There is also that unique educational magazine, the *Pedagogical Seminary*. For anyone who would be an intelligent and sympathetic observer and molder of boyhood and girlhood, I know of no richer source of knowledge and inspiration. Its reading would be rather unpalatable for one who believes that fitting for college is an end in itself. There are, now and then, articles in the *Educational Review* reporting results of tests of the senses and the various mental faculties. Professor Jastrow<sup>1</sup> contributes, "A statistical study of memory and association," and Professor Cattell,<sup>2</sup> "Tests of the senses and faculties." Both of these studies arouse thought and no teacher can afford to miss reading

<sup>1</sup> *Educ. Rev.*, Vol. II, 442.

<sup>2</sup> *Educ. Rev.*, Vol. V, 257.

them, but they are written, as are most of the magazine articles on this general subject, from the point of view of the experimental psychologist. The method used is to study a particular form of mental activity in many pupils and tabulate results. It is the only legitimate method of him who would contribute to the advancement of psychology. The method for the teacher to use, with the light which the man of mental science has given him, is to observe many mental processes in one particular pupil with a view to that pupil's advancement. The *Inland Educator*, in its issues of August and December 1895, and April 1896, presented an illuminating contribution by Professor Baldwin on "Differences in pupils from the teacher's point of view." The text-books on psychology, written ostensibly for teachers, are weak in their practical applications for the schoolroom.

Pupil study is a field of unlimited possibilities practically untouched as yet. It is pertinent to ask, do we know what inquiries arise in the minds of our pupils? Do we ever supply subject matter to answer the questions we think the adolescent ought to ask, or prescribe, to give a concrete case, books in English we think he should be interested in? It may be, what is the adult's intellectual meat is the young person's intellectual poison. The principal factors in intellectual growth are attention, memory and apperception; and it is especially important that these be studied, and in connection with the feelings which so largely direct them. Neither must individual habits be neglected. As deserving of the first place is the character of the pupil—at home, among friends, and in school. The bare mention, in this connection, of the word *environment* with all that it implies—home, church, society, etc., opens up a vast field of investigation. However, it is a form of research which deserves consideration, if we would complete the picture of the child's individuality. Such studies in this direction, as have already been reported, testify to the fact that as a result discipline becomes more charitable and personal encouragement more common.

In what I have attempted to say I would not be misunderstood.

I believe there was much good in the so-called "old" education which has been lost sight of. Little was given and that little was thoroughly digested. In the district school, teachers came close in touch with the pupil and with his environment. On the other hand, there is a tendency in the so-called "new" education to remove all difficulties from the way of the pupil. I would, rather, arrange the difficulties methodically and adapt them gradually to the needs of the individual. In furthering the accomplishment of a complete personality, I would not sacrifice one jot to superficiality. If anyone thinks for a moment I wish to pamper pupils, he entirely misunderstands my purpose. I plead for no "watered" courses of study nor, on the other hand, for that educational fetish, the so-called "harmonious development of all the faculties." I would substitute flexibility for rigidity in our courses of study, concentrate mental effort rather than scatter it, develop peculiar capacities rather than make up peculiar deficiencies, individualize instruction rather than mass it.

A prominent psychologist says, "while perhaps the greatest waste of time in America occurs in the lower grades, the greatest waste of energy occurs during the period of high school and college education. Great interests are not utilized, and the adolescent need of activity is often ignored." In France an account has lately been published of a class of a dozen average boys who were taken through the entire six years' course of the Lycée in less than three years, and without extra hours of work, by more efficient and well adapted teaching as applied to groups and to individuals.

That there might be some concrete embodiment, even if only in a very rough way, of a few of the educational principles which I have attempted to emphasize anew, I have had distributed copies of a simple and tentative plan of pupil study.<sup>1</sup> The plan grew out of the necessity of dealing with the individual pupil when he enters the high school—of ascertaining his previous experiences, and his natural inclinations and endowments. The purpose, at first, was simply to unify the work of the high school

<sup>1</sup>This plan was printed in the *SCHOOL REVIEW* for September 1897.

and the lower grades. There seems to be a loss of power at the point of change from the grammar schools. Often this unsettled period is enough to leave an unfortunate effect upon the whole high-school course of a pupil, when a little sympathetic care at the outset would have produced a very different result.

The plan will undergo still further revision as it is put into practice. Its purpose, the sources of information and the spirit in which it is undertaken are given on the printed copies, and I need not dwell upon them. The grammar-school principals have shown appreciation of the proposed plan. Conferences with the parents will soon be arranged for. The pupils themselves have already furnished interesting and suggestive data on reading. Each high-school teacher will have a small number of the pupils to look after. The data from the grammar schools will not be received until the last of October. If anyone here objects strenuously to confronting a pupil with his grammar-school record, I can but repeat, the whole spirit of the plan is in the interests of the pupil. It goes without saying, constant vigilance will be used to see that the pupil does not suffer from the system. If the high-school teachers were indifferent and took the reports of the other teachers without further inquiry or if they had not coöperated cordially in its formation, there might be danger from this source, but it has been guarded against as carefully as possible. Local conditions have had much to do in shaping this scheme of pupil study. Criticism and suggestions are asked for. Of those persons here, who see many objections to such a plan, I ask, do all the objections outweigh the advantages which a careful administration of the scheme by teachers distinctly conscious of its limitations and the responsibilities imposed on them, may ensure?

The second address was made by Professor William H. Burnham, of Clark University, on

#### SUGGESTIONS FROM THE PSYCHOLOGY OF ADOLESCENCE

It must, I suppose, be admitted that at the present time there is a somewhat widespread dissatisfaction with the results of